

INTERNATIONAL SEARCH REPORT

International application No.

PCT/SE 2004/001663

A. CLASSIFICATION OF SUBJECT MATTER

IPC7: C12N 5/02, C12N 5/08, A61K 35/12, A61P 25/28
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: C12N, A61K, A61P

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-INTERNAL, WPI DATA, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|-----------|--|-----------------------|
| A | Journal of investigative dermatology, volyme 106, no. 4, 1996, M.A. Rabi et al: "Differential Trypsinization - Selective Adhesion Technique for Cultivation of Normal Adult Human Melanocytes in Phorbol Acetate-Free and Cholera Toxin-Free Medium", page 884 | 1-17 |
| A | European Journal Dermatology, volume 13, no. 1, 2003, M.B. Abdel-Naser: "Mitogen requirements of normal epidermal human melanocytes in a serum and tumor promoter free medium", pages 29-33, page 2, "Prolifcration assays", page 3, "Discussion" | 1-17 |

☒ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

* Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier application or patent but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

2 March 2005

Date of mailing of the international search report

03 -03- 2005

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|-----------|---|-----------------------|
| A | DE 10162960 A1 (BIOTISSUE TECHNOLOGIES AG), 10 July 2003 (10.07.2003), (0005) - (0010), (0025) - (0029), claims -- | 1-17 |
| A | British Journal of Dermatology, volume 147, 2002, M.J. Olsson et al: "Long-term follow-up of leucoderma patients treated with transplants of autologous cultured melanocytes, ultrathin epidermal sheets and basal cell layer suspension", pages 893-904, page 894, column 2, paragraphs 4-5 -- | 1-17 |
| A | Arch Dermatol Res, volume 285, 1993, P. Donatien et al: "Growth and differentiation of normal human melanocytes in a TPA-free, cholera toxin- free, low-serum medium and influence of keratinocytes", pages 385-392, abstract; page 386, column 1, paragraphs 2-4 -- | 1-17 |
| A | WO 02051395 A1 (CODON PHARMACEUTICALS, INC.), 4 July 2002 (04.07.2002), page 22, line 25 - page 23, line 4, claims 1,6-7 -- | 16-25,27-35 |
| A | WO 0078331 A2 (YEDA RESEARCH AND DEVELOPMENT CO. LTD.), 28 December 2000 (28.12.2000), page 9, line 9 - line 18; page 10, line 17 - line 24 -- ----- | 16-25,27-35 |

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Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: 26 .
because they relate to subject matter not required to be searched by this Authority, namely:
Claim 26 relates to a method of treatment of the human or animal body by surgery or by therapy, as well as diagnostic methods /Rule 39.1(iv). See further the remark in Box II.2.
2. ☒ Claims Nos.: 16, 18-23, 25, 27-34 (partially), 26 (entirely)
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
Present claims 18-23, 25, 27-34 (partially) relate to an extremely large number of possible methods of screening and uses thereof. Support within the meaning of Article 6 PCT and
.../...
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
☐ No protest accompanied the payment of additional search fees.

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Box II.2

disclosure within the meaning of Article 5 PCT is to be found, however, for only a very small proportion of the methods claimed. In the present case, the claims so lack support, and the application so lacks disclosure, that a meaningful search over the whole of the claimed scope is impossible.

Consequently, the search has been carried out for those parts of the claims which appear to be supported and disclosed, namely those parts related to methods of screening which employ a human melanocyte culture which has been generated by the in vitro cultivation method according to any of claims 1-10.

In addition, claim 26 relates to the use of a substance defined by reference to a desirable characteristic or property, namely being identified by the screening method according to any of claims 18-24. The claim covers all substances having this characteristic or property, whereas the application provides no support within the meaning of Article 6 PCT and no disclosure within the meaning of Article 5 PCT for any substances which are capable of effecting neuronal cells and which could be used for treating Parkinson's disease. In the present case, the claim so lacks support, and the application so lacks disclosure, that a meaningful search over the whole of the claimed scope is impossible. Independent of the above reasoning, the claim also lacks clarity (Article 6 PCT). An attempt is made to define the substance by reference to a result to be achieved. Again, this lack of clarity in the present case is such as to render a meaningful search over the whole of the claimed scope impossible. Consequently, no search has been carried out for claim 26.

The term "autologous cell implantation" in claim 16, although indisputably being a means for treatment of various diseases, cannot in itself be regarded as a therapeutic application. There are an undefined number of diseases which might be related to this method of treatment. A practical application needs to be found in the form of a defined treatment of a specified pathological condition, this being an essential technical feature, in order to render claim 16 clear according to Article 6 PCT. Consequently, the search has been carried out for those parts of the claims which appear to be supported and disclosed, namely those parts related to the use of cells according to any of claims 11-13 for the preparation of a pharmaceutical composition for the treatment of Parkinson's disease or other neurodegenerative diseases by means of an autologous cell implantation.

INTERNATIONAL SEARCH REPORT

Information on patent family members

30/01/2005

International application No.

PCT/SE 2004/001663

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